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ABSTRACT

This study investigated the relation of differing patterns of counselor verbal behavior to the progress of participants in counseling groups. More specifically, the study compared changes in school attendance and achievement by low-achieving high school students who participated in counseling groups differing in quantity and quality of counselor verbal participation. Results included: (1) groups with low-talk counselors had attendance gains during counseling that were significantly greater than the gains of high-talk counselor groups; (2) groups with indirect approach counselors evidenced greater gains in grade point average (GPA) and attendance than did groups with direct approach counselors; (3) the greatest gains during counseling were made by low-talk, indirect groups, and the least gains were made by high-talk, direct groups; and (4) the quality and quantity of counselor talk appeared to have a greater impact on attendance change than on GPA change. (Author/TA)

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RELATION OF QUANTITY AND QUALITY OF COUNSELOR VERBAL PARTICIPATION TO OUTCOMES OF GROUP COUNSELING

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RELATION OF QUANTITY AND QUALITY OF COUNSELOR VERBAL PARTICIPATION TO OUTCOMES OF GROUP COUNSELING

by
Marian T. Kilbane

INTRODUCTION

Students who evidence serious difficulties in the areas of school achievement and/or adjustment present a pressing and persistent challenge to educators. With increasing frequency, group counseling appears as one element in programs designed to assist the "problem" student.

The positive impact of these group-counseling efforts depends, in part on the use of methods that are most conducive to the growth of underachieving or poorly-adjusting students. Clearer delineation of effective patterns of counselor-counselee interaction can contribute to more productive group counseling of academically-unsuccessful students.

The present study investigated the relation of differing patterns of counselor verbal behavior to progress of participants in counseling groups. More specifically, the study compared changes in school attendance and achievement that were evidenced by low-achieving high school students in counseling groups that differed in quantity and quality of counselor verbal participation.

The investigation focused on a group-counseling program that was operational only in schools in economically-disadvantaged urban areas. Consequently, the scope of the study was limited to the low socio-economic segment of the student population.

Rationale

The study proposed that two process variables--relative quantity and quality of counselor verbal behavior or "talk"--operate, both independently and in combination, as factors in group-counseling effectiveness. The study reflected the basic premise that the amount and type of counselor talk are separate and quantifiable dimensions of group activity and determine the degree to which counselee interaction is encouraged and given opportunity for expression.

Counselor talk which provides relatively high levels of acceptant and supportive statements promotes the "permissive, free and safe" environment conducive to verbal release of thoughts and feelings among group members. The amount of counselor talk establishes the limits of time available for counselee verbalizing. Counselor talk which constitutes a relatively low proportion of the total group talk provides greater opportunity for counselee interaction. Thus, both the quantity and quality of counselor talk will either facilitate or repress counselees' verbal interaction and progress toward greater effectiveness.

Purpose of the Study

This study investigated the outcomes of counseling groups that differed in the process dimensions of quantity and quality of counselor verbal participation. The study was intended to increase insight into group-counseling operations by providing answers to the following questions:

1. How are differences in the quantity dimension of counselor verbal influence related to differential outcomes among group-counseling participants? More specifically, what differences in attendance and school marks are evidenced by low achieving, eco-

nomically-disadvantaged students in counseling groups that differ in relative amount of counselor talk?

2. How are differences in the quality dimension of counselor verbal influence related to differential outcomes among group-counseling participants? More specifically, what differences in attendance and school marks are evidenced by low-achieving, economically-disadvantaged students in counseling groups that differ in I/D ratio of counselor talk? (I/D ratio represents the ratio of indirect-influence statements to direct-influence statements.)

3. How are differing combinations of quantity and quality of counselor verbal influence related to differential outcomes among group-counseling participants? More specifically, what differences in attendance and school marks are evident among students?

METHOD OF THE STUDY

Research Design

The study investigated outcome differences between and among counseling-group participants who had been exposed to differing types of treatment. The independent variables that differentiated among the treatments were not experimentally manipulated. Rather, these variables--quantity and quality of counselor verbal participation--were the natural behaviors that were observed to operate within the various groups. Since the study did not hypothesize differences between counseled and non-counseled subjects, control groups were not involved.

The Subjects

Subjects of the study were tenth-grade students who participated in a group-counseling program in six senior high schools of the Cleveland Public School System. The six schools were comparable in size of school enrollment and in characteristics of the school setting and population. Each of the six schools enrolled a high proportion of students from families receiving public assistance, and was classified as economically disadvantaged according to the poverty criteria defined by Title I of the Elementary and Secondary School Education Act.

The study involved all students who participated in the group-counseling program for the full semester, and for whom complete data were available. (The group-counseling program operated only in the six schools specified for the study.) The counseling program was established to serve students with histories of poor school achievement--i.e., final marks of "D" or "F" in several subjects and persisting over several semesters. Students who met this criterion were identified by school personnel and were "scheduled into" the counseling program. In general, these students also evidenced chronic absenteeism.

The Treatment

The group-counseling program involved three forty-five minute periods per week for a school semester of eighteen weeks. Two counseling groups, one of boys and one of girls, were established in each of the six schools. In each school, one counselor conducted both counseling groups.

With the exception of industrial arts and home economics, both boys and girls in each of the six schools followed the same program of studies and had the same teachers for academic subjects during the counseling semester.

In the present study, the number of counselees per group ranged from fifteen to twenty students. The mean group size was 15.6 students. Groups of this relatively large size are generally associated with group guidance rather than group counseling. However, in the absence of conclusive evidence supporting a maximun-size criterion, the group sizes represented in the present study were considered compatible with identification as group counseling.

Data Collection Procedures

Measures of counselor verbal behavior were obtained through systematic observation using the interaction analysis method developed by Flanders. A trained observer completed three 45-minute observations of each of the twelve counseling groups.

For each counseling group, the interaction tallies for the three observations were combined in a single composite matrix. Proportion of counselor talk and I/D ratio were computed for each group. Each group was identified as high or low talk, and as high or low I/D on the basis of position above or below the median of the distribution of the talk and I/D indices for the twelve groups. Attendance data for each student were obtained from school records. Data were collected for: (1) the semester preceding counseling; (2) the semester of counseling; and (3) the semester following counseling.

End-of-semester marks in English, mathematics, social studies, and home economics or industrial arts were collected for each student. Data were obtained from school records, and were compiled for: (1) the semester preceding counseling; (2) the semester of counseling; and (3) the semester following counseling.

Each student's grade-point average was calculated for each of three semesters--pre, during, and post-counseling. The grade-point average was the average of the numerical values corresponding to the letter-marks received by the student. (Marks were assigned on a five-point scale ranging from A=4 to F=0.)

Two change scores were computed for each of the two criterion variables (attendance and grade-point average). The first change score represented the difference between a student's

performance during the semester preceding counseling and during the counseling semester. The second change score represented the difference between a student's performance during the semester preceding counseling and during the post-counseling semester.

I.Q. data, based on pupils' scores on the Kuhlmann-Anderson Test of Scholastic Aptitude (Form H), were obtained from school records. This test was administered to all tenth-grade students as part of the regular testing program of the school system.

Data Analysis

Analysis of change scores in attendance and in GPA (pre-counseling vs. counseling semesters, and pre-counseling vs. post-counseling semesters) used two-way analysis of covariance. This procedure permitted simultaneous assessment of high-talk vs. low-talk, high-I/D vs. low I/D, and talk-I/D interaction.

In the analysis of attendance data, the pre-counseling attendance was the covariate and attendance change was the criterion variable. In the GPA analysis, the covariates were pre-counseling GPA and the Kuhlmann-Anderson Deviation I.Q. score. The criterion variable was change in GPA.

The experimental unit used in the statistical analysis was the individual counseling group, rather than the individual counselee. The present study reflected the basic assumption that the progress of a counselee was a function of (and not independent of) the interaction of the participants in the counselee's group. It was further assumed that each counseling group did respond independently of the other eleven counseling groups. Thus, the counseling group represented the appropriate experimental unit.

RESULTS

A total of 192 students--104 boys and 88 girls--completed the semester of counseling. Necessary I.Q., attendance and GPA data were available for 171 students--91 boys and 80 girls--representing 89% of the total number of counseling participants.

Table 1 summarizes the distribution of I.Q. scores and pre-counseling attendance and GPA for boys, girls and total group. Boys and girls did not differ significantly on any of the three measures.

TABLE 1

The students' mean I.Q. score of 80.55 reflected "low-average" scholastic aptitude. During the semester preceding counseling, the average number of days attended (76.46) corresponded to an attendance rate of approximately 85% for the 90-day semester. The mean GPA of 1.35 represented school marks that were slightly above a "D" average.

Classification of Groups By Talk and I/D Ratios

A composite I/D ratio and a counselor-talk ratio were computed for each of the twelve groups. The I/D ratios ranged from .16 (most direct) to .75 (most indirect) and had a median value of .26. The six groups below the median were classified as "low I/D" or direct-approach groups. The six groups above the I/D median were categorized as "highI/D" or indirect-approach groups.

Counselor-talk ratios for the twelve groups had a median value of .47 and ranged from .33 to .73. The six groups with talk ratios above the median were classified as "high talk" groups; the six groups below the median were considered "low talk" groups.

The correlation between talk ratios and I/D ratios yielded a Spearman rho of -.30. This coefficient reflected an inverse but nonsignificant relationship between level of talk and level of indirectness. Although there was a tendency for higher talk ratios to be associated with lower I/D ratios (more direct behavior), the relative weakness of the association supported treatment of talk and directness as independent dimensions of counselor verbal behavior.

Application of the Mann-Whitney U test revealed that there was no significant difference between the mean talk ratios of the high I/D and low I/D groups ($z = .16$), or between the mean I/D ratios of the high-talk and low-talk groups ($z = .56$)

Attendance Change During Counseling

The means for pre-counseling attendance and for attendance change during the counseling semester were computed for the groups in each of the four talk-I/D categories. The means are presented in Table 2.

TABLE 2

Data were examined using covariance analysis, with attendance change serving as the criterion variable and pre-attendance measures serving as the covariate. Significant F values (Table 3) were obtained for both main effects (level of talk and

level of directness). The interaction was not significant.

TABLE 3

Table 4 summarizes the adjusted attendance-change means. Examination of the adjusted means revealed that, within the level-of-talk main effect, the low-talk approach was more effective than the high-talk approach. Within the level-of-directness main effect, the indirect approach was more effective than the direct approach.

TABLE 4

GPA Changes During Counseling

The mean values for I.Q. scores, pre-counseling GPA, and GPA changes during counseling were computed for the groups in each of the four talk-I/D categories. Results are summarized in Table 5.

TABLE 5

Covariance analysis was applied to the data with GPA change as the criterion variable, and with I.Q. and pre-counseling GPA as the covariates. The main effect of level of directness approached but did not attain a significant F-value ($.01 < p < .05$). Neither the main effect of level of talk nor the interaction effect proved significant (Table 6).

TABLE 6

Since Hypothesis 6(a) involved comparisons established on an a priori basis, adjusted means were computed for the GPA changes of each of the four talk-I/D group categories. Examination of the adjusted means (Table 7) revealed that differences between means of high-talk and low-talk groups and between low-I/D (direct) and high-I/D (indirect) groups were in the hypothesized directions.

TABLE 7

Analysis of Changes Persisting Through the Post-Counseling Semester

At the end of the semester following the semester of counseling, 142 students--77 boys and 65 girls--remained enrolled in the schools in which they had participated in the group counseling. Necessary data were available for 130 of these students--71 boys and 59 girls--representing approximately 92% of the total post-counseling group.

Attendance Change

The means for pre-counseling attendance and for attendance change (pre vs. follow-up) were computed for the groups in each of the four talk-I/D categories. The means are presented in Table 8.

TABLE 8

Data was examined using analysis of covariance. The criterion variable was attendance change--i.e., the difference between pre-counseling attendance and attendance for the semester following the conclusion of counseling. The covariate was the pre-counseling attendance.

The covariance analysis (Table 9) yielded non-significant results for both of the main-effects comparisons, as well as for the interaction effect.

TABLE 9

Examination of the adjusted means (Table 10) revealed that differences between means of high-talk and low-talk groups, and between low-I/D (direct) and high I/D (indirect) groups were in the hypothesized directions.

TABLE 10

GPA Changes

The mean values for I.Q. scores, pre-counseling GPA and GPA change (pre vs. follow-up) were computed for the groups in each of the four talk-I/D categories. The means are presented in Table 11.

TABLE 11

Data were examined using analysis of covariance. The criterion variable was GPA change, i.e., the difference between the pre-counseling GPA and the GPA for the semester following the conclusion of counseling. Covariates were I.Q. scores and pre-counseling GPA.

The covariance analysis (Table 12) yielded non-significant results for both of the main effects comparisons, as well as for the interaction effect.

TABLE 12

Examination of the adjusted means (Table 13) revealed that the difference between the adjusted means of low-I/D (direct) and high-I/D (indirect) groups was in the hypothesized direction. The adjusted means for high-talk and low-talk groups reflected only a negligible difference which was not in the hypothesized direction.

TABLE 13

SUMMARY AND CONCLUSIONS

The analyses of outcome measures during the treatment period yielded results that were consistent with the theoretical framework as applied to counseling groups of low-achieving students from high schools in low socio-economic urban areas. Groups with high-I/D or indirect-approach c ounselors evidenced greater gains in GPA and attendance during the treatment semester than did groups with low-I/D or direct-approach counselors. The difference between direct-approach and indirect-approach groups was significant for attendance change ($p < .01$) and approached significance for GPA change ($.01 < p < .05$).

Analysis of attendance change and GPA change during the treatment semester yielded results that gave partial support to the hypothesized effect of quantity of counselor talk. Groups with low-talk counselors had attendance gains during counseling that were significantly greater than the gains of high-talk-counselor groups ($p < .01$). Although the low-talk groups also surpassed the high-talk groups in GPA gains during counseling, the difference did not attain the stated significance level and may be attributed to chance variation.

The absence of significant interaction effects for either attendance or GPA changes during counseling indicated the additive nature of the quantity and quality factors. The greatest

gains during counseling were made by low-talk, indirect groups, and the least gains (or greatest declines) were made by high-talk, direct groups. For both GPA and attendance changes during counseling, the differences between gains of low-talk, indirect groups and high-talk, direct groups proved significant.

The quality and quantity of counselor talk appeared to have a greater impact on attendance change than on GPA change. Differences between direct and indirect groups and between low-talk and high-talk groups were greater for attendance changes than for GPA changes. Attendance measures may more readily reflect student reaction to counseling because attendance behavior is more directly controlled by the student. GPA measures, on the other hand, reflect student behavior as assessed by teachers.

The counseling-semester outcomes, supporting the significant effects of both quality and quantity of counselor talk, did not maintain through the post-counseling semester. Attendance changes and GPA changes persisting through the post-counseling semester reflected a decline from counseling-semester levels. The greatest declines occurred among those groups--indirect approach and low-talk--that had attained the greatest gains during the counseling semester. This suggests that, with the removal of the treatment support, groups tended to regress toward the common mean. Despite the fact that the groups with the greatest treatment gains had the sharpest post-treatment declines, these groups retained a sufficient margin of the initial increase to continue to show the greatest gains persisting through the post-counseling period. However, neither the direct vs. indirect nor the low-talk vs.high-talk differences reached significance for either attendance change or GPA change.

The post-counseling findings appeared to indicate that one semester of group counseling was not sufficient to establish enduring behavior change in the selected counselee group.

TABLE 1

I.Q. SCORES, PRE-ATTENDANCE AND PRE-GPA FOR STUDENTS WHO COMPLETED SEMESTER OF GROUP COUNSELING

	I.Q. Scores			Pre-Attendance			Pre-GPA		
	N	$\bar{X}$	s.d.	N	$\bar{X}$	s.d.	N	$\bar{X}$	s.d.
Total	171	80.55	11.64	167	76.46	12.92	171	1.35	.94
Boys	91	82.07	13.11	90	76.86	11.96	91	1.29	.21
Girls	80	78.81	9.41	77	76.00	13.95	80	1.42	.96

TABLE 2

MEANS: PRE-COUNSELING ATTENDANCE AND CHANGE DURING COUNSELING GROUPED BY TALK-I/D CATEGORIES

Talk	High Talk		Low Talk		Combined	
Directness	Pre	Change	Pre	Change	Pre	Change
Low I/D (Direct)	75.70	-8.60	81.09	-2.34	78.39	-5.47
High I/D (Indirect)	77.12	-1.67	72.17	5.41	74.65	1.87
Combined	76.41	-5.13	76.63	1.53	76.52	-1.80

TABLE 3

COVARIANCE ANALYSIS OF CHANGES IN ATTENDANCE DURING THE COUNSELING SEMESTER

Source	SS	df	MS	F
A (Talk)	127.42	1	127.42	16.87**
B (Directness)	232.53	1	232.53	30.80**
AB	30.18	1	30.18	4.00
Error	52.85	7	7.55	

** $p < .01$ $\quad F_{.99}(1,7) = 12.2$

TABLE 4

ADJUSTED MEANS: ATTENDANCE CHANGES DURING THE COUNSELING SEMESTER

	High Talk	Low Talk	Combined
Low I/D (Direct)	-8.05	-5.38	-6.72
High I/D (Indirect)	-2.07	+8.30	+3.12
Combined	-5.06	+1.46	-1.80

TABLE 5

MEANS: I.Q., PRE-COUNSELING GPA AND GPA CHANGES DURING THE COUNSELING SEMESTER

Talk	High Talk			Low Talk			Combined		
Directness	I.Q.	Pre-GPA	GPA Change	I.Q.	Pre-GPA	GPA Change	I.Q.	Pre-GPA	GPA Change
Direct	78.94	1.16	.12	82.38	1.93	.08	80.66	1.54	.10
Indirect	80.54	1.42	.65	81.13	.97	.71	80.83	1.19	.68
Combined	79.74	1.29	.38	81.76	1.45	.39	80.75	1.37	.39

TABLE 6

ANALYSIS OF COVARIANCE OF GPA CHANGES DURING THE COUNSELING SEMESTER

Source	SS	df	MS	F
A (Talk)	.04	1	.04	-
B (Directness)	.51	1	.51	11.29*
AB	.07	1	.07	1.56
Error	.27	6	.045	

* $p < .05$ $F_{.99}(1,6) = 13.7$ $F_{.95}(1,6) = 5.99$

TABLE 7

ADJUSTED MEANS: GPA CHANGES DURING THE COUNSELING SEMESTER

	High Talk	Low Talk	Combined
Low I/D (Direct)	.00	.32	.16
High I/D (Indirect)	.66	.58	.62
Combined	.33	.45	.39

TABLE 8

MEANS: PRE-COUNSELING ATTENDANCE AND CHANGE (PRE-COUNSELING VS. POST-COUNSELING)

Talk	High Talk		Low Talk		Combined	
Directness	Pre	Change	Pre	Change	Pre	Change
Low I/D (Direct)	77.72	-7.38	85.11	-7.31	81.42	-7.34
High I/D (Indirect)	77.66	-4.28	73.58	+1.81	75.62	-1.24
Combined	77.69	-5.83	79.35	-2.75	78.52	-4.29

TABLE 9

COVARIANCE ANALYSIS OF CHANGES IN ATTENDANCE PERSISTING THROUGH THE POST-COUNSELING SEMESTER

Source	SS	df	MS	F
A (Talk)	18.70	1	18.70	-
B (Directness)	98.41	1	98.41	2.35
AB	36.03	1	36.03	-
Error	293.29	7	41.90	

TABLE 10

ADJUSTED MEANS: ATTENDANCE CHANGES PERSISTING THROUGH THE POST-COUNSELING SEMESTERS

	High Talk	Low Talk	Combined
Low I/D (Direct)	-7.14	-9.27	-8.20
High I/D (Indirect)	-4.02	+3.28	-0.37
Combined	-5.58	-3.00	-4.29

TABLE 11

MEANS: I.Q., PRE-COUNSELING GPA AND GPA CHANGE (PRE-COUNSELING VS. POST-COUNSELING SEMESTERS)

Talk	High Talk			Low Talk			Combined		
Directness	I.Q.	Pre-GPA	GPA Change	I.Q.	Pre-GPA	GPA Change	I.Q.	Pre-GPA	GPA Change
Low I/D (Direct)	78.41	1.29	-.45	81.81	2.15	-.73	80.11	1.72	-.59
High I/D (Indirect)	79.11	1.39	-.33	79.90	.97	-.25	79.51	1.18	-.29
Combined	78.76	1.34	-.39	80.86	1.56	-.49	79.81	1.45	-.44

TABLE 12

COVARIANCE ANALYSIS OF GPA CHANGES PERSISTING THROUGH THE POST-COUNSELING SEMESTER

Source	SS	df	MS	F
A (Talk)	.0003	1	.0003	-
B (Directness)	.03	1	.03	-
AB	.002	1	.002	-
Error	.64	6	.11	

TABLE 13

ADJUSTED MEANS: GPA CHANGES PERSISTING THROUGH THE POST COUNSELING SEMESTER

	High Talk	Low Talk	Combined
Low I/D (Direct)	-.51	-.49	-.50
High I/D (Indirect)	-.36	-.40	-.38
Combined	-.43	-.44	-.44

APPENDIX B

SAMPLE INTERACTION MATRIX

CATE-GORY	1	2	3	4	5	6	7	8	9	10	TOTAL
1	-	-	-	-	-	-	-	-	-	-	0
2	-	3	2	3	-	-	-	-	6	-	14
3	-	2	19	9	14	-	-	2	16	2	64
4	-	-	4	62	3	2	3	77	36	14	201
5	-	1	2	27	129	3	6	-	37	5	210
6	-	-	-	3	2	5	-	-	5	2	17
7	-	-	-	5	3	2	4	5	8	2	29
8	-	2	13	38	9	2	5	22	16	5	112
9	-	6	22	45	41	3	9	-	176	6	308
10	-	-	2	9	9	-	2	6	8	9	45
TOTAL	0	14	64	201	210	17	29	112	308	45	1000
	I/D Ratio = 78/256 = .30							Talk Ratio = 535/1000 = .53			